

CALIFORNIA OCCUPATIONAL GUIDES

CONSTRUCTION AND BUILDING INSPECTORS

CALIFORNIA OCCUPATIONAL GUIDE - NUMBER 306
2002

INTEREST AREA
MECHANICAL - CONSTRUCTION TRADES



WHAT DOES A CONSTRUCTION AND BUILDING INSPECTOR DO?

CONSTRUCTION and BUILDING INSPECTORS examine the construction or repair of buildings, highways and streets, sewer and waste water systems, dams, bridges, and other structures. Construction and Building Inspectors can specialize in one or more fields. These specialty fields include building inspectors, electrical inspectors, elevator inspectors, mechanical inspectors, public works inspectors, and home inspectors. The following general duties are common to most specialty fields:

- Inspect structures for compliance with building codes and ordinances, structural quality, and zoning regulations.
- Review contract specifications for the safety and utility of structures.
- Monitor inspection activities through the use of computers and specialized software.

- Maintain a work log, take photographs, file reports, and act on inspection findings.
- Use survey instruments, metering devices, tape measures, and test equipment, such as concrete strength measurer, in carrying out inspections.

Building Inspectors inspect the structural quality and general safety of buildings. They typically inspect the soil condition and position and depth of foundation footings before the construction of a building foundation. Building Inspectors also routinely examine a structure's fire sprinklers, alarms and smoke control systems, and fire exits.

Electrical Inspectors examine the installation of electrical systems and equipment to ensure compliance with electrical codes and standards. Other routine inspections include electrical wiring for heating and air-conditioning systems and appliances and sound and security systems.

Mechanical Inspectors inspect the installation of the mechanical components of commercial kitchen appliances, heating and air-conditioning equipment, gasoline and butane tanks, gas and oil piping, and gas-fired and oil-fired appliances.

Public Works Inspectors ensure that federal, State, and local government construction projects (i.e., water and sewer systems, highways, streets, and bridges) comply with contract specifications. They inspect excavation and fill operations, the placement of forms for concrete, concrete mixing and pouring, asphalt paving, and grading operations. Public Works Inspectors can specialize in highways, structural steel, reinforced concrete, or ditches.

Home Inspectors conduct inspections of newly built or previously owned homes. They generally inspect a home's roofing and structural quality as well as the home's plumbing, electrical, and heating and air conditioning systems. Most

Construction and Building Inspectors work for county or municipal building departments. An increasing number work for private consulting firms specializing in building inspection.

WHAT SKILLS ARE IMPORTANT?

Some of the important skills, knowledge, and abilities for Construction and Building Inspectors are listed below:

- Building and Construction – Knowledge of materials, methods, and the appropriate tools to construct objects, structures, and buildings.
- Product Inspection – Inspecting and evaluating the quality of products.
- Problem Identification – Identifying the nature of problems.
- Problem Sensitivity – The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
- Judgment and Decision Making – Weighing the relative costs and benefits of a potential action.
- Writing – Communicating effectively with others in writing as indicated by the needs of the audience.
- Information Gathering – Knowing how to find information and identifying essential information.
- Active Listening – Listening to what other people are saying and asking questions as appropriate.
- Speaking – Talking to others to effectively convey information.
- Critical Thinking – Using logic and analysis to identify the strengths and weaknesses of different approaches.

WHAT'S THE WORK ENVIRONMENT?

Construction and Building Inspectors usually work alone and spend most of their time at building sites. Building sites are often dirty and cluttered with tools, materials, or debris. Since much of their time is spent outdoors, Construction and Building Inspectors are subjected to all types of weather. Part of their time is also spent indoors, reviewing blueprints, answering letters or telephone calls, writing reports, and scheduling inspections.

Construction and Building Inspectors walk and move about construction jobs in any stage of completion.

This includes climbing ladders, riding on an open platform hoist, crawling around in tight spaces, and working many stories above the ground.

Union Membership

Many Construction and Building Inspectors work for city or county governments and can join government employee unions.

WHAT'S THE CALIFORNIA JOB OUTLOOK?

The following information is from the occupational projections produced by the Employment Development Department's Labor Market Information Division:

Estimated number of workers in 1998:	6,400
Estimated number of workers in 2008:	7,700
Projected Growth 1998-2008:	20.3%
Est. openings due to separations by 2008:	1,800

These figures do not include self-employment.

Construction and Building Inspector employment will grow slower than average compared with all occupations.

Trends

As the economy continues to expand, demand for Construction and Building Inspectors is on the rise, particularly in cities and suburban areas undergoing rapid growth. On average, Construction and Building Inspectors tend to be older than most workers. A large number of Inspectors are expected to retire during this period, creating additional job openings.

Given the present and projected increases in real estate transactions, robust growth for Home Inspectors is expected. Job opportunities with private engineering, architectural, and management services firms are also likely to increase due to the tendency of governments to contract out inspection work and a projected increase in private inspection services.

WHAT DOES THE JOB PAY?

California Earnings

Construction and Building Inspectors 2001 Wages

Hourly wages range from	\$19.85	to	\$28.39
Average hourly wage	\$24.39		
Average annual wage	\$50,730		

Source: Occupational Employment Survey of Employers by EDD/LMID.

Hours

Construction and Building Inspectors normally work 40 hours a week, Monday through Friday. However, they may work additional hours during periods when a lot of construction is taking place. Also, if an accident occurs at a construction site, Inspectors must respond immediately and may work additional hours.

Benefits

Benefits usually include vacation, holidays, sick leave, health and dental insurance, and a pension program. Construction and Building Inspectors also receive expense money for food and lodging when working away from home.

HOW DO I PREPARE FOR THE JOB?***Education and Training***

Construction and Building Inspectors should have a thorough knowledge of construction materials and practices. Knowledge may be general, such as structural or heavy construction, or specialized, such as electrical or plumbing systems, reinforced concrete, or structural steel. This knowledge is acquired through several years of work experience as a construction contractor, supervisor, or craft worker. Many Construction and Building Inspectors previously worked as carpenters, electricians, plumbers, or pipefitters.

Most employers also require formal education and training. Employers look for Construction and Building Inspector applicants who possess at least a high school diploma. High school preparation should include courses in drafting, algebra, geometry, and English. Often, employers prefer individuals who have graduated from an apprenticeship program, studied engineering or architecture for at least two years, or have a degree from a community college with courses in construction technology, blueprint reading, mathematics, and building inspection.

Construction and Building Inspector applicants must be in good physical condition in order to walk and climb about construction sites. Possession of a valid driver's license is required. In addition, federal, State, and many local governments usually require that applicants pass a civil service examination. Many employers also require that Construction and Building Inspector applicants possess a certification from the

International Conference of Building Officials (ICBO).

Inspectors receive most of their training on the job. Recently hired Inspectors spend the first couple of weeks working with an experienced Inspector learning about inspection techniques; codes, ordinances, and regulations; contract specifications; and record keeping and reporting duties.

Licensing and Certification

Most cities require some type of certification for employment. Even if prospective employers do not require certification, Inspectors possessing a certificate enjoy greater employment and advancement opportunities. Certification involves the passage of stringent examinations on code requirements, construction techniques, and materials. Professional organizations like the Building Officials and Code Administrators International offer voluntary certification.

Continuing Education

Continuing education is very important. Construction and Building Inspectors must keep abreast of changes in the building codes, construction practices, and technical developments. Most large employers offer formal training programs designed to broaden Inspectors' knowledge of construction materials, practices, and techniques. Inspectors employed by small agencies or firms upgrade their skills and expand their knowledge by taking college or correspondence courses, or by attending seminars sponsored by professional trade associations, such as the ICBO.

HOW DO I FIND THE JOB?

Direct application to employers remains one of the most effective job search methods. Public sector openings are listed in personnel/human resource departments of cities and counties. The State Personnel Board at www.spb.ca.gov posts job opportunities with the State of California. Private firms are listed in the yellow pages under Home Inspectors, Building Code Inspectors, and Construction Consultants. Some professional associations noted in the Other Sources of Information section of this guide also post job openings.

California job openings can be found at various online job-listing systems including CalJOBSSM at

www.caljobs.ca.gov or at America's Job Bank at www.ajb.dni.us.

For other occupational and wage information and a listing of the largest employers in any county, visit the Employment Development Department Labor Market Information Web page at www.calmis.ca.gov. Find further job search assistance from your nearest Job Service office www.edd.ca.gov/jsloc.htm or the closest One-Stop site listed on the California WorkNet site, www.sjtcc.ca.gov/sjtccweb/one-stop.

WHERE CAN THIS JOB LEAD?

Promotions in public agencies depend upon passing a series of written and/or oral civil service examinations for each higher level of the Construction and Building Inspector series.

Construction and Building Inspectors usually promote to higher level positions, such as Senior Construction and Building Inspector, Principal Construction and Building Inspector, and Chief Construction Building Inspector.

Each higher level requires additional knowledge and experience, and usually involves supervisory responsibility. Upper level Building Inspectors perform the entire range of moderate to difficult inspections of a variety of residences, commercial, and industrial buildings.

OTHER SOURCES OF INFORMATION

For certification and career information contact:

American Society of Home Inspectors, Inc.
932 Lee Street, Suite 101
Des Plaines, IL 60016
(800) 743-2744
www.ashi.com

Building Officials and Code Administrators
International, Inc.
4051 West Flossmoor Road
Country Club Hills, IL 60478
(708) 799-2300
www.bocai.org

International Conference of Building Officials
5360 Workman Mill Road
Whittier, CA 90601-2298
(800) 423-6587
www.icbo.org

Southern Building Code Congress International, Inc.
900 Montclair Road
Birmingham, AL 35213-1206
(205) 591-1853
www.sbcci.org

Employment Projections by Occupation
www.calmis.ca.gov/htmlfile/subject/occproj.htm

Employment and Wages by Occupation
[www.calmis.ca.gov/file/occup\\$/OES\\$.htm](http://www.calmis.ca.gov/file/occup$/OES$.htm)

RELATED OCCUPATIONAL GUIDES

Industrial Engineers	No. 3
Civil Engineers	No. 39
Architects	No. 210

OCCUPATIONAL CODE REFERENCES

SOC (*Standard Occupational Classification*)
Construction and Building Inspectors 47-4011

O*NET (*Occupational Information Network*)
Construction and Building Inspectors 47-4011.00

OES (*Occupational Employment Statistics*)
Construction and Building Inspectors 21908

DOT (*Dictionary of Occupational Titles*)

Building Inspector	168.167-030
Electrical Inspector	168.167-034
Elevator Inspector	168.167-038
Heating and Refrigeration Inspector	168.167-046
Plumbing Inspector	168.167-050
Building Inspector (Insurance)	168.267-010
Construction Inspector	182.267-010